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PROVISIONAL SPECIFICATION.

Improved Valve Controlling Device or Means for the Nozzles of Hose Pipes or the like.

I, MILNES BUCKLEY, of 8, Brook Street, Thornton Lodge, Huddersfield, in the County of York, Commercial Traveller, do hereby declare the nature of this invention to be as follows:—

This invention relates particularly to the nozzles of hose pipes employed in
5 cleaning motor cars, vats or cisterns or other objects or surfaces or for watering
gardens, and has for its object the provision in combination with such nozzles
of simple and easily controlled means adapted to be actuated by hand for giving
free passage to the water from the hose to the outlet nozzle and for self-actingly
cutting off the emission of water from the nozzle whenever required, or on
10 laying down the nozzle, without having to turn off the water at the source of
supply.

According to my invention, I provide in a recess in the rear end of the
nozzle a suitable valve seating with which is adapted to engage and make a
tight joint, a ball or other similar or suitable valve which is located in the
15 said recess.

The external portion of the recessed rear end of the nozzle is provided with a
screw thread to admit of said nozzle being screwed into and thus secured to the
device or tapered pipe provided for receiving the end of the hose pipe which can
be forced on to said tapered pipe to secure same thereto in the ordinary manner.

20 Adapted to be moved within limits, in the wall or casing of the nozzle or in
an extension or nipple thereon, as may be fixed by a flange or flanges or the
like adapted to engage shoulders in the wall or casing, is a spindle or rod
preferably extending in an angular or inclined direction through the nozzle
in order that the inner end thereof may be brought into engagement with the
25 ball or like valve. The valve operating spindle preferably passes through a
suitable gland or stuffing box to make a tight joint and at its outer end it is
provided with a head or enlargement to admit of a finger or the thumb of one
hand being pressed thereon when using the hose to force the spindle inwardly
and by its engagement with the ball or like valve force the latter away from its
30 seating to allow of the free passage of water through the nozzle.

On putting down the nozzle, or at any time on releasing the pressure on
the valve operating spindle, the ball or like valve is forced by the pressure of
the water in the hose pipe into engagement with the valve seating and thus
prevents further passage of water through the delivery nozzle. The nozzle is
35 provided with external flanges or the like between which is held a washer of
india rubber or other suitable substance or material, the diameter of same being
such that if the nozzle is dropped on to the ground the said washer will prevent
it from coming into contact therewith and thus avoid all liability of injury
arising from this cause.

40 By the means set forth all waste of water can be avoided, the supply being
cut off automatically the moment that it is no longer required and without

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shutting off the water at the source of supply, such saving being important where the water is supplied by meter.

The tapered pipe is interchangeable with pipes of different diameters to suit the size of hose employed, the taper of the pipe preferably being such that the hose can be bound tightly thereto throughout the effective length of the pipe. 5

Dated this 7th day of November, 1914.

BARRON & LEWIN,
Station Street Buildings, Huddersfield,
Agents for the Applicant.

COMPLETE SPECIFICATION.

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Improved Valve Controlling Device or Means for the Nozzles of Hose Pipes or the like.

I, MILNES BUCKLEY, of 8, Brook Street, Thornton Lodge, Huddersfield, in the County of York, Commercial Traveller, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly 15 described and ascertained in and by the following statement:—

This invention relates to the nozzles of hose pipes employed in cleaning motor cars, vats or cisterns or other objects or surfaces or for watering gardens and particularly to nozzles of the type having valves which are closed by the water pressure and a spring when the hand of the user is removed from a press 20 button, or by water pressure only, and has for its object the provision of a simple modified construction of such valves combined with the nozzle, and of the hand actuated type, for giving free passage as ordinarily to the water from the hose to the outlet nozzle and for self-actingly cutting off, without the use of springs, the emission of water from the nozzle whenever required, or on 25 laying down the nozzle, without having to turn off the water at the source of supply.

According to my invention, I provide in a recess in the rear end of the nozzle a suitable valve seating with which is adapted to engage and make a tight joint, a ball or like valve which is located in the said recess. 30

The external portion of the recessed rear end of the nozzle is provided with a screw thread to admit of said nozzle being screwed into and thus secured to the device or tapered pipe provided for receiving the end of the hose pipe which can be forced on to said tapered pipe to secure same thereto in the ordinary manner.

Adapted to be moved within limits, in an extension or nipple on the nozzle 35 as may be fixed by a flange or flanges or the like adapted to engage shoulders in the wall or casing, is a spindle or rod extending in an angular or inclined direction through the nozzle in order that the inner end thereof may be brought into engagement with the ball or like valve. The valve operating spindle passes through a suitable gland or stuffing box to make a tight joint and at 40 its outer end it is provided with a head or enlargement to admit of a finger or the thumb of one hand being pressed thereon when using the hose to force the spindle inwardly and by its engagement with the ball or like valve force the latter away from its seating to allow of the free passage of water through the nozzle. A spring retracted spindle arranged at right angles to the nozzle and 45 actuated by hand to force a ball away from its seating and into a recess out of the line of flow, has heretofore been proposed, the nozzle, however, having to be tilted or turned over to cause the ball to be dislodged from the recess and brought into the line of flow to secure reclosing of the valve. In hose-pipe nozzles it has also been proposed to seat a ball or disc valve on a horizontal plate 50

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or division extending across the thoroughfare so as to be opened by a vertical push spindle and said spindle returned by spring to close the valve, or by pressure of the water, while in another construction the ball is moved away from its seating by a lever actuated by a push spindle arranged at an angle to the lever and water thoroughfare or by a push spindle arranged at right angles to the thoroughfare and actuated by finger pressure or by a lever to open the valve, the push spindle being returned to normal position by a spring, or by the valve lever. In a further construction of hose-pipe valve, the nozzle and inlet or supply pipe are located on opposite sides of the valve casing and the push spindle with spring and valve are located intermediate same in an angular position. No claim is herein made to any of such arrangements.

Referring to the accompanying drawing which illustrates my invention clearly, Fig. 1 is a longitudinal section showing the position of the parts when the nozzle is in use, and Fig. 2 the device resting upon the ground.

1 represents the hose pipe passing over a tapered pipe 2 screwed internally at its free or outer end to enable the rear end 3 of the nozzle 4 to be secured to it. Placed between these two portions 2 and 3 is a rubber or other resilient jointing ring 4¹ to enable a water tight joint to be made.

Inclining at a suitable angle is an extension or nipple 5 cast on the nozzle portion 4 and adapted to receive a spindle 6 working through a stuffing box 7 screwed into the casing 5 to make a tight joint. The spindle 6 is adapted to move within limits in an angular or inclined direction to the axis of the nozzle and the inner end 6¹ is adapted to engage a ball or like valve 8, its outer end being provided with a head or enlargement 9. The limit of inward movement of the spindle is determined by a collar 6² coming in contact with the inner end of the opening 5¹ and the outward movement is limited by said collar coming into contact with the ring 7¹ of the stuffing box:

When using the hose a finger or thumb is pressed against the head 9 of the spindle 6 to force the spindle inwardly and by the engagement of its inner end 6¹ with the ball or like valve 8 the latter is forced away from its seating and allows of free passage of water through the nozzle. The ball remains in the position shown in Fig. 1 until the finger is released from engagement with the head 9, ribs or projections 2¹ preventing the ball from falling too far away. When the spindle is released, that is to say when it is desired to put the nozzle down, or for any other reason, the ball or like valve 8 is forced by the pressure of the water in the hose pipe, and without the use of springs, into engagement with the valve seating and thus prevents further passage of water through the delivery nozzle 10, as shown at Fig. 2.

The nozzle is provided with external flanges 11 or the like between which is held a washer 12 of india rubber or other suitable substance or material, the diameter of same being such that if the nozzle is dropped on to the ground the said washer will prevent it from coming into contact therewith and thus avoid all liability of injury arising from this cause. A guard plate provided with rubber rings has previously been provided in connection with hose pipe valves.

By the means set forth all waste of water is avoided, the supply being cut off automatically the moment that it is no longer required and without shutting off the water at the source of supply, such saving being important where the water is supplied by meter.

The tapered pipe is interchangeable with pipes of different diameters to suit the size of hose employed, the taper of the pipe preferably being such that the hose can be bound tightly thereto throughout the effective length of the pipe.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

In a valve controlling device or means for the nozzles of hose pipes and the

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like, the combination, with a tapered pipe attached to the hose pipe, of a nozzle screwed into the end of such tapered pipe and provided with an angular extension or nipple and with a ball recess or socket at the rear end thereof, a ball or like valve placed loosely in the recess or socket in the rear end of the nozzle and adapted to be forced by the pressure of the liquid against a seating to close the inner end of the nozzle, a releasing spindle passing through a stuffing box in the angular extension or nipple on the nozzle and movable within fixed limits in an angular or inclined direction to the axis of the nozzle and ball valve, means for limiting the movement of the spindle and ball, and a rubber or like washer or disc secured between flanges on the nozzle, all substantially as herein shown and described. 5 10

Dated this 7th day of May, 1915.

BARRON & LEWIN,
Station Street Buildings, Huddersfield,
Agents for the Applicant.

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Fig. 1.

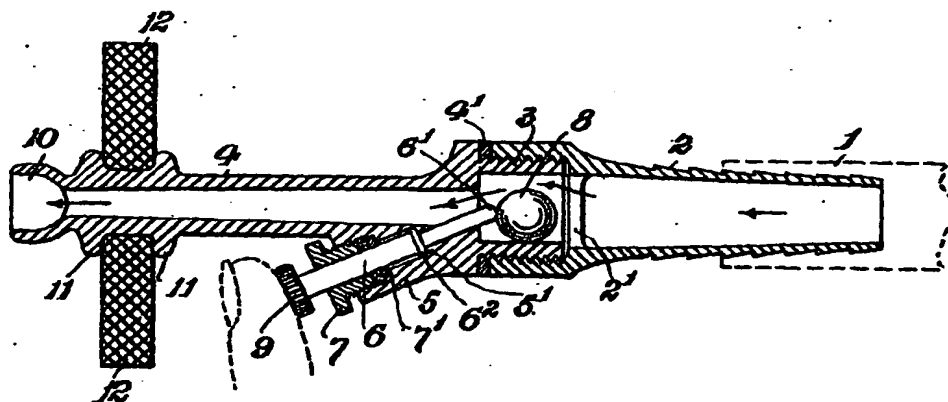
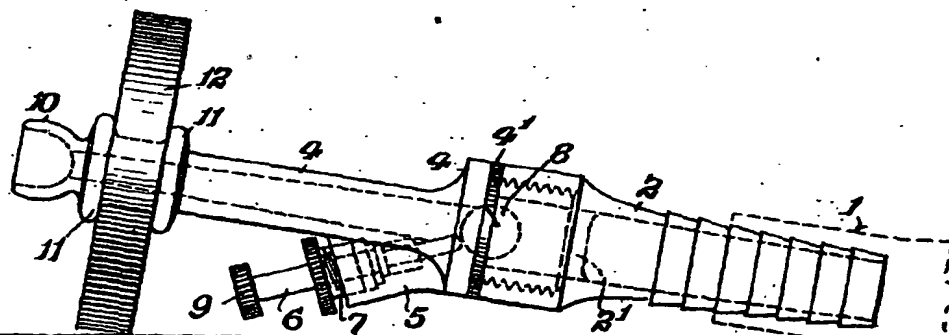


Fig. 2.



[This Drawing is a reproduction of the Original on a reduced scale.]

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